

# SIMANF{R}

## Model for *Pinus sylvestris* stands Galicia (Spain)

### Model

Psylvestris\_stand\_gal\_v01.py

### Model description

- Specie: *Pinus sylvestris* L.
- Spanish Forest Inventory (SFI) code: 21
- Geographical area: Galicia
- Geographical area (administrative): A Coruña, Lugo, Ourense and Pontevedra

### Model type

- Category: stand growth
- Model level: stand
- Reproduction methods: seedling forest
- Stand structure: even-aged stands
- Species composition: monospecific stands
- Forest origin: plantation

### Model requirements and recommended use

- Initial inventory requirements: age, mean height and density of the plot
- Geographical area: Galicia, closer places and another places with similar characteristics (assuming differences)
- Stand type: monospecific stands
- Execution recommended time: 1 year executions (survival and growth equations developed by using that criteria)
- Site Index is defined as top height at a base age of 40 years



Figure 1: *Pinus sylvestris* stand, by ClémentGodbarge commonswiki assumed (based on copyright claims). Own work assumed (based on copyright claims)., CC BY-SA 3.0, <https://commons.wikimedia.org/w/index.php?curid=323975>



Figure 2: Details of *Pinus sylvestris*, public domain, <https://commons.wikimedia.org/w/index.php?curid=529150>

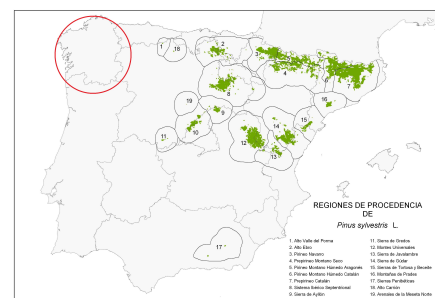


Figure 3: Provenance regions of *Pinus sylvestris* in Spain, by MAPA

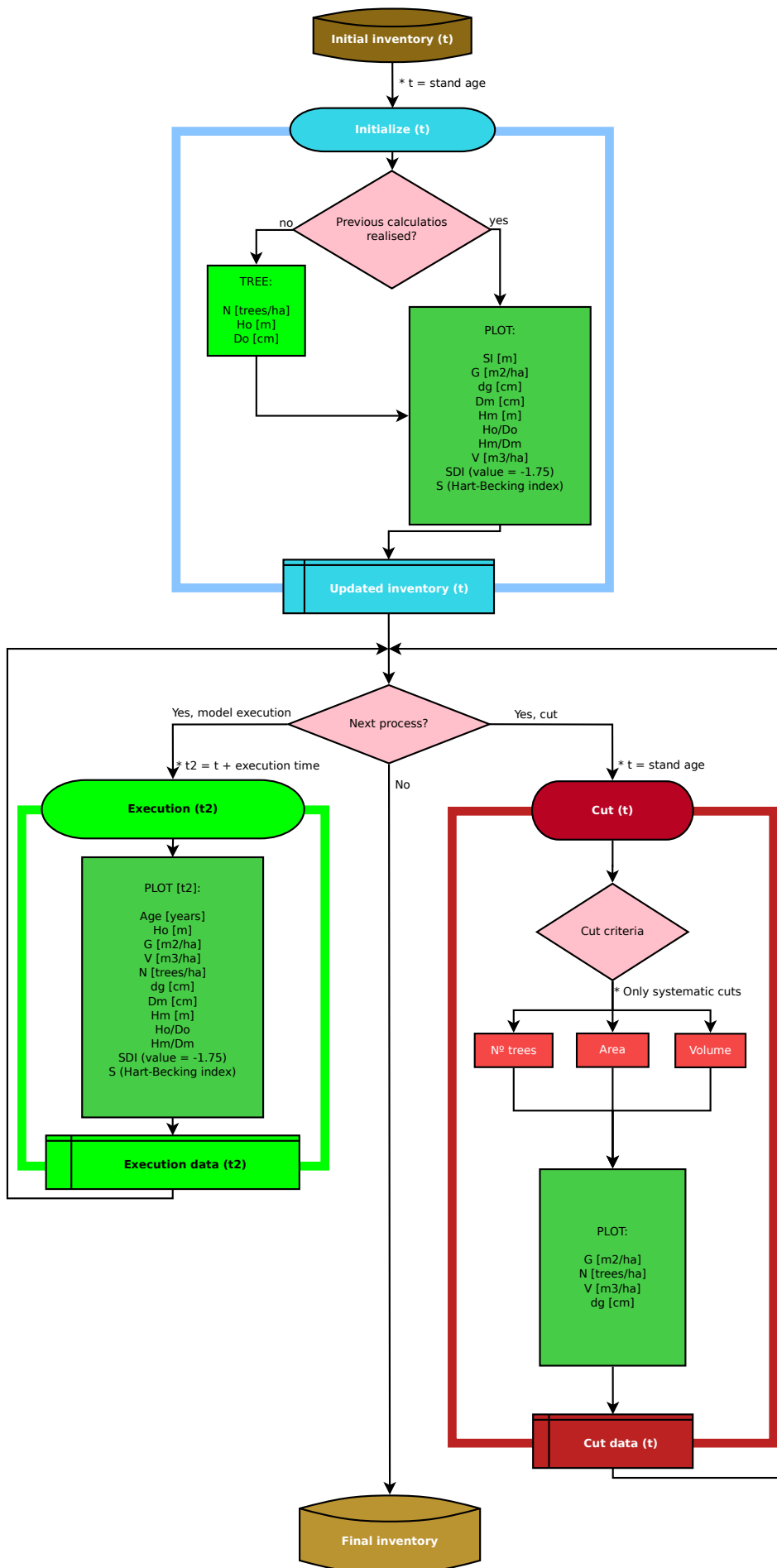
# Bibliography

Complete SiManFor model (recommended citation): –¿ cambiar?

SILVES

## Model components:

- **Calculations by using tree data** (just in cases when that information is not available at the initial inventory):  
Density and Dominant Height
- **Site Index equation:**  
Diéguez-Aranda U, Álvarez JG, Barrio-Anta M, Rojo A (2005). Site quality equations for *Pinus sylvestris* L. plantations in Galicia (northwestern Spain). *Annals of Forest Science*, 62(2), 143-152
- **Dominant Height Growth equation:**  
Diéguez-Aranda U, Rojo A, Castedo-Dorado F, et al (2009). Herramientas selvícolas para la gestión forestal sostenible en Galicia. *Forestry*, 82, 1-16
- **Survival equation:**  
Diéguez-Aranda U, Rojo A, Castedo-Dorado F, et al (2009). Herramientas selvícolas para la gestión forestal sostenible en Galicia. *Forestry*, 82, 1-16
- **Basal Area and Basal Area Growth equation:**  
Diéguez-Aranda U, Rojo A, Castedo-Dorado F, et al (2009). Herramientas selvícolas para la gestión forestal sostenible en Galicia. *Forestry*, 82, 1-16
- **Volume and Volume Growth equation:**  
Diéguez-Aranda U, Rojo A, Castedo-Dorado F, et al (2009). Herramientas selvícolas para la gestión forestal sostenible en Galicia. *Forestry*, 82, 1-16
- **Mean Diameter and Mean Height equation:**  
Diéguez-Aranda U, Rojo A, Castedo-Dorado F, et al (2009). Herramientas selvícolas para la gestión forestal sostenible en Galicia. *Forestry*, 82, 1-16
- **Value for Reineke Index equation:**  
del Río M, Montero G (2011). Modelo de simulación de claras en masas de *Pinus sylvestris* L. Monografías INIA: Forestal n. 3
- **Quadratic Mean Diameter and Hart Index equation:**  
Standard equations
- **Harvest equations:**  
Harvest equations developed by using equations mentioned before.



## Contacts

Sustainable Forest Management Research Institute UVa-INIA, iuFOR (University of Valladolid-INIA)  
Dendrochronology and Forest Modeling Department

Higher Technical School of Agricultural Engineering of Palencia - Avd. Madrid 57; 34004 - Palencia (Spain)  
Vegetal Production and Forest Resources Department

### **Aitor Vázquez Veloso**

Tel.: +34 979 108 430

e-mail: [aitor.vazquez.veloso@uva.es](mailto:aitor.vazquez.veloso@uva.es)

more information: <http://sostenible.palencia.uva.es/users/aitorvazquez>

### **Cristóbal Ordóñez**

Tel.: +34 979 108 417

e-mail: [a.cristo@pvs.uva.es](mailto:a.cristo@pvs.uva.es)

more information: <http://sostenible.palencia.uva.es/users/acristo>

### **Felipe Bravo Oviedo**

Tel.: +34 979 108 417

e-mail: [fbravo@pvs.uva.es](mailto:fbravo@pvs.uva.es)

more information: <http://sostenible.palencia.uva.es/users/fbravo>

## Interest Links

**SIMANFOR** - Support system for simulating Sustainable Forest Management Alternatives. Accessed 11 May 2021, in <https://www.simanfor.es/>

**iuFOR** - Sustainable Forest Management Research Institute UVa-INIA. Accessed 11 May 2021, in <http://sostenible.palencia.uva.es/>

**ETSIIAA Palencia** - Higher Technical School of Agricultural Engineering of Palencia. Accessed 11 May 2021, in <http://etsiiaa.uva.es/>

**UVa** - University of Valladolid. Accessed 11 May 2021, in <https://www.uva.es>

# SIMANFOR

